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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/593,360	09/19/2006	Saburou Yamagata	MOR-270-A	1223
<div>7590 Andrew R Basile Young & Basile 3001 W Big Beaver Road Suite 624 Troy, MI 48084</div>			<div>EXAMINER YANG, JIE</div>	
			<div>ART UNIT 1793</div>	<div>PAPER NUMBER</div>
			<div>MAIL DATE 03/02/2010</div>	<div>DELIVERY MODE PAPER</div>

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/593,360	Applicant(s) YAMAGATA ET AL.	
	Examiner JIE YANG	Art Unit 1793	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 December 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,5-10,12 and 14-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,5-10,12 and 14-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 1793

DETAILED ACTION

Claims 1 and 10 are amended, claims 2-4, 11, and 13 are cancelled, and claims 1, 5-10, 12, and 14-16 are pending in application.

Claim Rejections - 35 USC § 102

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 16 is rejected under 35 U.S.C. 102(b) as anticipated by Kazuo (JP 2000-239738, thereafter JP'738).

JP'738 is applied to claim 16 for the same reason as stated in the previous office action marked 9/8/2009.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 5-7, and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP'738 in view of Okuda Motoshige (JP 05-017817, thereafter JP'817).

JP'738 in view of JP'817 is applied to claims 1, 5-7, and 10 for the same reason as stated in the previous office action marked 9/8/2009.

Regarding the amended features in the instant claims 1 and 10, which do not change the scope of the claims.

Claims 8, 9, 12, and 14-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP'738 in view of JP'817 as applied to claims 1 and 10, and further in view of Saburo et al (JP 2003-286517, thereafter JP'517).

JP'738 in view of JP'817 and JP'517 is applied to claims 8, 9, 12, 14, and 15 for the same reason as stated in the previous office action marked 9/8/2009.

Response to Arguments

Applicant's arguments filed on 12/2/2009 with respect to claims 1, 5-10, 12, and 14-16 have been fully considered but they are not persuasive.

In the remark, the Applicant argues:

A) Regarding the rejection for claim 16 under 35 U.S.C. 102(b) as anticipated by Kazuo (JP 2000-239738, thereafter JP'738), the Examiner is asked to explain how adjusting the oscillating generating means in relation to the work piece equates to an oscillation device that moves both horizontally and reciprocally in the cooling liquid.

Art Unit: 1793

JP'738 discloses the vibrating motor generates only the oscillation of the vertical direction ([0018]-[0019] of JP'738).

B) Regarding the rejection under 35 U.S.C. 103(a), JP'738 does not disclose the use of an oscillation device horizontally and reciprocally moving in the liquid; JP'738 does not disclose introducing a gas above the liquid surface level. JP'817 does not disclose both the use of an oscillation device horizontally and reciprocally moving in the liquid and breaking the vapor film. JP'817 discloses controlling the gas pressure above the liquid level, but JP'817 does not discuss removing a vapor film by breaking the vapor film at all.

C) JP'715 does not disclose 1) the use of an oscillation device horizontally and reciprocally moving in the liquid; 2) breaking the vapor film by applying a pressure to the vapor film that is repeatedly varied; 3) breaking the vapor film, the pressure being repeatedly varied.

In response,

Regarding the argument A), as pointed out in the previous office action marked 9/8/2009, JP'738 teaches feeding the heated work piece into hardening agent with vibration generating in a quenching tub in order to remove the vapor film and JP'738 teaches the position between an oscillating devices and a work piece is adjustable in order to remove the vapor film efficiently. Firstly, the location adjustment between the oscillating devices and the work piece includes the horizontal adjustment; Secondly, up and down movement of motor creates 3-dimension oscillatory wave since the oscillating motor connects with oscillating shafts and wings (abstract, Fig.1, 4, paragraph [0018]-

Art Unit: 1793

[0020] of JP'738), which includes the oscillating device horizontally and reciprocally movement related to the work piece. Therefore, it is the Examiner's position that the three dimensional vibrating wave taught by JP'738 (Abstract and paragraph [0023]) reads on the limitation of horizontally and reciprocally moving as recited in the instant claims.

Regarding arguments B) and C), the applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). In the instant case, JP'738 in view of JP'817 is applied to claims 1, 5-7, and 10; and JP'738 in view of JP'817 and JP'517 is applied to claims 8, 9, 12, 14, and 15. The detail discussions and motivations for combining these references can refer to office action marked 9/8/2009.

Still regarding the argument B), as pointed out in the previous office action marked 9/8/2009, JP'817 discloses controlling the gas pressure above the liquid level. The application of repeatedly varying pressure in the form of a three dimensional wave would inherently result in a change of the pressure applied to the liquid level of the cooling liquid, which would lead to the limitation of breaking the vapor film by applying a pressure to the vapor film that is repeatedly varied and/or breaking the vapor film, the pressure being repeatedly varied as recited in the instant claims.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jie Yang whose telephone number is 571-2701884. The examiner can normally be reached on IFP.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on 571-2721244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1793

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JY

/Roy King/
Supervisory Patent Examiner, Art Unit 1793